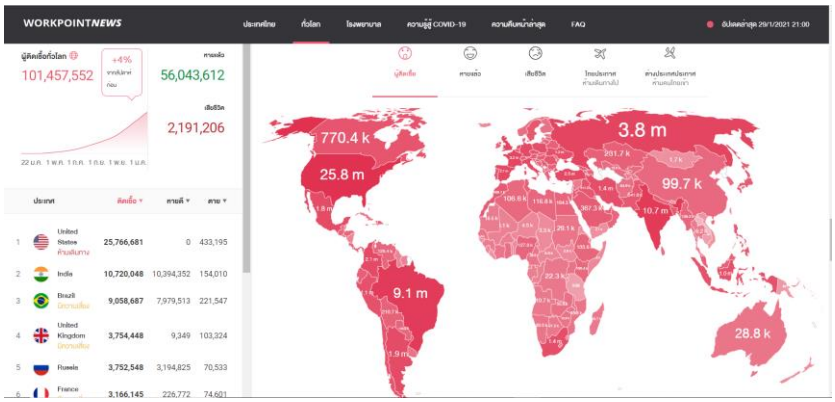
ITCS 209 Object Oriented Programming	Name:	Lab Score	Challenge Bonus
	ID:		
	Section:		

Lab04: Classes, Objects, Methods

Objectives:

- Student can create classes, constructor, setter/getter, and main methods.
- Student can instantiate objects of the specified class.
- Student can write a statement to call methods.

In this lab, you will be implementing a Java program to store and retrieve country-wise COVID-19 data of the following website (only important information). The important attributes are provided in the Class diagram `CovidProfile`.



Ref: https://covid19.workpointnews.com/

CovidProfile
- date: String - location: String - accumulatedCases: int - curedCases: int - deathCases: int
+ CovidProfile(String _date, String loc, int noACC, int noCured, int noDeath) + getLocation(): String + getAccCases(): int + getCuredCases(): int + getDeathCases(): int + setLocation(String loc): void + setAccCases (int value): void + setCuredCases (int value): void + setDeathCases (int value): void + printCovidInfo(): void

Task 1: Create a *class* **`CovidProfile`** (CovidProfile.java) to store the following attributes (or instance fields):

- `String date`: date/time of the data, e.g., "2020-01-18"
- `String location`: location where the data are collected, e.g., "Thailand"
- `int accumulatedCases`: the number of accumulated infected patients, e.g., 17023
- `int curedCases`: the number of cured cases, e.g., 11396
- `int deathCases`: the number of dead patients, e.g., 76

Please ensure that these attributes cannot be accessed directly by other classes.

Task 2: Implement 2 ***Constructor*** *methods as follows:*

`public CovidProfile()` This method set default values as: "none", "none", 0, 0, 0.

`public CovidProfile(String _date, String loc, int noACC, int noCured, int noDeath)` This method takes input parameters and assigns them to each corresponding attribute.

Task3: Implement *setter* and *getter methods* to store and retrieve **each** of those variables. For example, **`setLocation(String value)`** is used for setting the location of the COVID-19 information, and **`getLocation()`** is a read-only method that is used for retrieving (getting) the location.

Task 4: Implement a method `printCovidInfo()` to print all information in the following format

```
THAILAND at 2021-01-29
Accumulative Patient: 17023
Cured Patient: 11396
Death Case: 76
```

Task 5: Create a class `CovidReporter` (CovidReporter.java), containing a ***main*** *method*. In the main method, implement the following statements:

5.1 Instantiate at least two `CovidProfile` *objects* to store COVID profiles of different country locations. You should access this website https://covid19.workpointnews.com/ and select locations to get the actual data.

- At least one object profile must be instantiated by `new CovidProfile()` and set all the values using setter methods.
- At least one object profile must be instantiated by `new CovidProfile(String _date, String loc, int noACC, int noCured, int noDeath)`

5.2 Print the information of those objects by calling their `printCovidInfo()` method.

Challenge Bonus (Optional):

1. In the class `CovidProfile`, use **a static variable to count the number of CovidProfil**e objects created. Then print out such a number in the main method in the class `CovidReporter`**.**
2. In the class `CovidProfile`, create another method named `isSevere()` that returns an either true or false value. The method will return true if the `deathCase` value is larger than 10,000.
3. Create another (useful) method of your own.
